

CLAIMS

What is claimed is:

1. In a digital cordless telephone system, a full-duplex audio
5 path between a base unit and a remote handset, comprising:

an unbalanced coding scheme wherein digital audio
transmitted in a first direction over said full-duplex audio path is encoded
using a first encoding scheme different from a second encoding scheme
used to encode digital audio transmitted over said full-duplex audio path in
10 a second direction opposite said first direction.

2. In a digital cordless telephone system, the full-duplex
audio path between a base unit and a remote handset according to claim
1, wherein:

15 a first encoding algorithm of said first encoding scheme is
different from a second encoding algorithm of said second encoding
scheme.

3. In a digital cordless telephone system, the full-duplex
20 audio path between a base unit and a remote handset according to claim
1, wherein:

a bit rate of said first encoding scheme is different from a bit
rate of said second encoding scheme.

25 4. In a digital cordless telephone system, the full-duplex
audio path between a base unit and a remote handset according to claim
2, wherein:

30 a bit rate of said first encoding scheme is substantially equal
to a bit rate of said second encoding scheme.

5. In a digital cordless telephone system, the full-duplex audio path between a base unit and a remote handset according to claim 1, wherein:

said first encoding scheme is provided in a base unit of said digital cordless telephone system; and

said second encoding scheme is provided in a remote handset of said digital cordless telephone system.

6. In a digital cordless telephone system, the full-duplex audio path between a base unit and a remote handset according to claim 5, wherein:

said first encoding scheme comprises uncompressed encoding.

7. In a digital cordless telephone system, the full-duplex audio path between a base unit and a remote handset according to claim 6, wherein:

said second encoding scheme comprises ADPCM encoding.

8. In a digital cordless telephone system, the full-duplex audio path between a base unit and a remote handset according to claim 7, wherein:

said ADPCM encoding has a bit rate of no greater than 32 kb/s.

9. In a digital cordless telephone system, the full-duplex audio path between a base unit and a remote handset according to claim 6, wherein:

said uncompressed encoding comprises at least one of μ -law and A-law encoding at 64 kb/s.

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10. A method of providing an unbalanced coding scheme in a digital cordless telephone, comprising:

5 providing a first radio frequency bandwidth for transmission of encoded digitized audio data from a base unit to a corresponding remote handset; and

providing a second radio frequency bandwidth different from said first radio frequency bandwidth, for transmission of encoded digitized audio data from said remote handset to said base unit.

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11. The method of providing an unbalanced coding scheme in a digital cordless telephone according to claim 10, wherein:

said first radio frequency bandwidth is significantly larger than said second radio frequency bandwidth.

12. Apparatus for providing an unbalanced coding scheme in a digital cordless telephone, comprising:

means for providing a first radio frequency bandwidth for transmission of encoded digitized audio data from a base unit to a corresponding remote handset; and

20 means for providing a second radio frequency bandwidth different from said first radio frequency bandwidth, for transmission of encoded digitized audio data from said remote handset to said base unit.

13. The apparatus for providing an unbalanced coding scheme in a digital cordless telephone according to claim 12, wherein:

25 said first radio frequency bandwidth is significantly larger than said second radio frequency bandwidth.

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14. A digital cordless telephone system, comprising:
a base unit having an audio encoding scheme of a first type;
and
a remote handset having an audio encoding scheme of a
5 second type different from said first type.

15 The digital cordless telephone system according to
claim 14, wherein:
said first type encoding scheme in said base unit has a
10 faster bit rate than said second type encoding scheme in said remote
handset.

16. The digital cordless telephone system according to
claim 14, wherein:
15 said first type encoding scheme comprises one of A-law and
u-law; and
said second type encoding scheme comprises one of
ADPCM and CELP.

20 17. In a digital cordless telephone system, a full-duplex
audio path between a base unit and a remote handset, comprising:
an unbalanced coding scheme wherein digital audio
transmitted in a first direction over said full-duplex audio path is encoded
using a first analog-to-digital conversion precision different from a second
25 analog-to-digital conversion precision used to encode digital audio
transmitted over said full-duplex audio path in a second direction opposite
said first direction.

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18. In a digital cordless telephone system, the full-duplex audio path between a base unit and a remote handset according to claim 17, wherein:

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said first analog-to-digital precision is 12 bits or fewer; and
said second analog-to-digital precision is greater than 12

bits.

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